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ABSTRACT

A monopole antenna includes a conductive ground plane, a conductive radiating plate, an antennae interface terminal, and a resonant network for defining operating characteristics of the antennae. The conductive radiating plate is spaced apart from the ground plane and, together with the ground plane, defines a cavity therebetween. The antennae interface terminal is in communication with the cavity and is electrically isolated from the ground plane and the radiating plate. The resonant network includes an inductive element electrically coupled between the interface terminal and the radiating plate. Preferably, the inductive element is disposed within the cavity and comprises a first air-core coiled wire inductor electrically coupled between the radiating plate and the interface terminal, and a second air-core coiled wire inductor electrically coupled between the interface terminal and the ground plane. Also, preferably each inductor has a number of wire turns, and the resonant network provides the antenna with a resonant frequency determined in accordance with the number of wire turns.

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